Section 806. BICYCLE PATHS

806.01 Description. This work consists of constructing a bicycle path.

806.02 Materials. Materials shall meet the following requirements.

Concrete, Grade P2	601
Concrete, Grade S3	701
Coarse Aggregate 6A, 6AA	902
Granular Material	902
Concrete Curing Materials	903
HMA Mixture	501
Joint Fillers	914

806.03 Construction. The bicycle path shall be constructed to the alignment and grades established by the Engineer.

A. **Equipment.** Equipment for constructing bicycle paths shall meet the requirements of subsections 502.03.A and 602.03.A, with the following modifications:

1. **Hauling Equipment.** Size and weight of hauling units shall not damage the grade. All damage caused by the Contractor's use of oversize equipment will be repaired at the Contractor's expense.

2. **Pavers.** Pavers for HMA bicycle paths shall be self-powered machines, capable of paving widths of 8 feet or greater, capable of being extended in 1- foot increments, and need not be automated. HMA bicycle paths adjacent to a paved shoulder or curb may be placed with a spreader if the required tolerances are met.

   Paving equipment for concrete bicycle paths shall consist of a slipform paver, or fixed forms with an approved screed capable of meeting surface tolerance results. When fixed forms are used, they shall be full depth forms, straight and free from warp, and of sufficient strength to resist springing during concrete placement.

3. **Rollers.** The rollers shall be tandem steel wheeled rollers not exceeding 3 tons unless otherwise permitted by the Engineer.

B. **Preparation of Base.**

If the existing earth grade is suitable, it shall be compacted, smoothed, and trimmed as directed by the Engineer.

Where the existing earthgrade contains vegetative cover and root mat, all such material shall be removed for a depth of at least 2 inches and shall be disposed of off the right-of-way, or within project limits if approved by the Engineer, according to Subsection 201.03.A.4. The resultant subgrade shall then be compacted, smoothed, and trimmed as directed by the Engineer.

The moisture content of the earthgrade or subgrade shall be maintained such that it will provide adequate stability for supporting the paver and hauling units. Any aeration, water, or compactive effort required to provide such support is considered a part of the required base preparation and shall meet the approval of the Engineer.

Any additional embankment required shall be Granular Material. The bicycle path aggregate for use in treating areas of unstable subgrade shall be used as directed by the Engineer.

C. **Placing and Compacting HMA Mixtures.** The mixture shall not be placed at depths greater than 3 inches per course.

The mixture shall be placed by methods which will produce a smooth, dense surface free of irregularities. After final rolling, the surface shall not vary more than ¼ inch when checked with a 10-foot straightedge. Vertical curves are excluded from this requirement.

D. **Placing and Finishing Concrete.** The concrete mixture shall be placed by methods which will produce a smooth, dense surface free of irregularities. When fixed forms are used they shall be firmly staked to the required line and grade. After final screeding, the surface shall not vary more than ¼ inch in 10 feet when checked with a 10-foot straightedge. Vertical curves are excluded from this requirement.

The base shall be moist at the time of placing concrete. The concrete shall be placed to the depth specified and thoroughly spaded along the forms before finishing operations are started.

All edges shall be rounded to the specified radius with an approved finishing tool. The surface of the bicycle path shall be broomed to slightly roughen the surface.

At driveways that have curb and gutter on the drive approach, a curb drop shall be provided to allow an opening for the bicycle path. The curb drop shall conform to details for driveway opening, detail L, except that the one-inch rise at the back of the gutter shall be replaced by a rounded valley as shown on sidewalk ramp details.

E. **Joints for Concrete.**

1. **Transverse Plane of Weakness Joints.** Transverse plane of weakness joints shall be spaced at approximately 12 foot intervals. The joint shall be either sawed to a width of ⅛ inch and to a depth of 1 inch with a concrete saw or formed with a grooving tool having an overall width of approximately 36 inches and a radius of curvature at the joint of approximately ⅛ inch. Sawing must be accomplished as soon as the concrete has hardened such that no excess raveling or spalling occurs, but before any random cracks develop. Sealing of joints will not be required.

2. **Transverse Expansion Joints.** Full depth transverse expansion joints shall be spaced at approximately 200-foot intervals. The joints shall contain a ½ - inch thick premolded joint filler set ¼ inch below the surface of the concrete. Sealing of joints will not be required.

F. **Finish Grading.** Earth shall be bladed against the exposed edge of the bike path. The surface of the path shall be free draining. The disturbed area shall be restored by adding topsoil, roadside seeding and mulch, or sodding according to section 816.

806.04 Measurement and Payment.

Contract Item (Pay Item)	Pay Unit
Bicycle Path, Grading	Foot
Bicycle Path, Aggregate	Ton
Bicycle Path, Aggregate, LM	Cubic Yard
Bicycle Path, HMA	Ton
Bicycle Path, Conc	Square Yard

A. **Bicycle Path, Grading** will be measured in place. Measurement will be along the centerline of the path within the limits shown on the plans. Unless otherwise specified, the pay item includes all excavation, compacting the grade, furnishing and compacting embankment, and grading for curb cuts for ramps and driveways to construct the path to the alignment and grade established by the Engineer. All fine grading of a constructed grade or the fine grading of existing ground which requires no further shaping than the removal of the root mat or vegetative cover will be included. All brushing and tree trimming required for the path, and removing and disposing of the excess material are also included.

B. **Bicycle Path, Aggregate** includes payment for furnishing and placing the aggregate as needed to treat areas of unstable subgrade, as determined by the Engineer.

C. **Bicycle Path, HMA** will be measured by weight of HMA mixture used to build the path. The pay item includes furnishing, placing, and compacting the HMA mixture.

D. **Bicycle Path, Conc** will be based on plan quantity. Deductions will be made for structures, crossroads, sidewalk ramps, and other discontinuities in the path paving.

E. Unless provided for by separate pay items, payment for the cost of restoring all finished slopes and sodded or seeded areas which have been disturbed by the construction of the bicycle path will be included in the payments for **Bicycle Path, HMA** or **Bicycle Path, Conc** as applicable.

F. Sidewalk ramps, curb and gutter removal and placement, and other appurtenances included in the contract as pay items will be paid for separately.